Motion 5

Exam Preparation Guide for the Level One Certification

Updated September 2013

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About This Guide

This guide provides all the information you need to prepare to earn the Apple Certified Certified Pro - Level One status. From this guide you can:

- Learn about Apple Certification
- Find out how to take an exam
- Locate resources to help you prepare for an exam
- Review the range of objectives that the exam may cover
- Get a feel for the type of questions that appear on the exam

Becoming an Apple Certified Pro

The Apple Training and Certification program is designed to keep you at the forefront of Apple technology. Certification creates a benchmark to demonstrate your proficiency in specific Apple technologies and gives you a competitive edge in today's evolving job market.

Apple offers levels of certification: **Apple Certified Associate, Apple Certified Pro - Level One,** and **Apple Certified Pro - Level Two**. Certification exams do not require class attendance. Students who prefer to learn on their own or who already have the necessary skills may take an exam for a fee.

Apple Certified Associate status validates basic entry-level skills in a specific application. Unlike an Apple Certified Pro exam, you can take Associate Level exams online from the comfort of your home or office. Apple Certified Associate status is appropriate for students, for someone preparing for a first job or for college-level programs, or for someone interested in validating entry-level credentials. Currently, Apple Certified Associate status is not available for Motion 5.

An **Apple Certified Pro** is a user who has reached the highest skill level in the use and operation of Apple's pro applications as attested to by Apple. Students earn certification by passing the online certification exam administered only at Apple Authorized Training Centers (AATCs). Apple Certified Pro status is appropriate for industry professionals.

Apple Certified Pro - Level One attests to basic operational knowledge of a specific application. Level One exams are administered at the end of specific courses, or you may take the exam at an AATC for a fee.

Apple Certified Pro - Level Two attests to a deeper understanding of the application as well as mastery of advanced features. You can take Level Two exams only after earning Level One certification. Currently, Level Two status is not available for Motion 5.

Many Apple Certification exams are available in multiple languages. Even AATCs that do not offer localized courses can still offer localized exams. For details, visit training.apple.com/certification/localized.

What are the benefits of Apple Certification?

Beside differentiating you as a skilled user of an Apple application, becoming an Apple Certified Pro allows you to leverage the power of the Apple brand. When you pass a certification exam, you receive an email with a PDF copy of your Apple certificate, along with instructions on how to order a printed or a printed and framed certificate. The email includes LinkedIn, Facebook, and Twitter icons to make it easy for you to share your certification news with your networks on these sites.

You also receive a login for the Apple Certification Records System, where you can:

- Update your profile information and opt in to display your Apple Certification(s) on the Apple Certified Professionals Registry
- Review your certification progress
- Download your certification logo(s) to use on business cards, resumes, websites, and more
- Provide access to employers to verify your certifications

Exam Details

"Motion 5" by Mark Spencer prepares you to take the Level One certification exam to earn Apple Certified Pro status.

The Motion 5 Level One exam is a computer-based test offered at AATCs. To find the closest AATC, visit training.apple.com/locations.

Many AATCs schedule certification exam sessions at training.apple.com/schedule. If you don't see a session scheduled at your nearest AATC, contact the AATC and they may be able to schedule a session. **Please note that all AATCs offer all Mac OS X and pro apps exams, even if they don't offer the corresponding course.**

The Motion 5 Level One exam details:

- Exam number: 9L0-815
- Number of test questions: approximately 45 technical, five demographic (unscored)
- The exam uses a random pool of multiple-choice, fill-in-the-blank, and interactive-media questions
- Passing score: 80 percent (scores are *not* rounded; you must earn a score of 80 percent or higher to pass the exam)
- Details on exam scoring are at training.apple.com/certification/faq
- Exam duration: One hour thirty minutes
- Some exams are also available in other languages; for details, visit training.apple.com/certification/localized

The exam timer does not start until you view the first technical question. You may not access any resources or references during the exam.

Recommended Exam Preparation

We recommend the following exam preparation strategies:

- Gain experience with the application.
- Learn from experts: Motion 101: Introduction to Motion 5.
- Study the Apple Pro Training Series book "Motion 5" by Mark Spencer.
- Review the optional study materials.
- Review the objectives and sample questions in this guide.

Gain experience with the application

Nothing can substitute for time spent learning the technology firsthand. After you read the book and/or take the class, spend time increasing your familiarity with the software on your own to ensure your success on the certification exam.

Learn from experts

Apple Authorized Training Centers (AATCs) offer classes where you can learn hands on with the technology and benefit from the expertise of Apple Certified Trainers and your peers. Visit the Apple Training & Certification website to find course offerings at nearby AATCs.

Study the Apple Pro Training Series book

Apple Pro Training Series books are the basis for the related Apple Certification exams. The book for this exam is Apple Pro Training Series "Motion 5." You can purchase the book at peachpit.com (click here for a 30 percent discount code). Creative Edge, an on-demand digital library, offers subscription access to the Apple Training and Apple Pro Training Series, as well as thousands of other reference videos and books. If you use an iPad, an electronic version is available on the iBookstore. Some books are also available in other languages. Click here for details.

Review the optional study materials

The following resources may also help you prepare for your certification exam, as well as expand your general knowledge:

- Review the appropriate sections of the Motion User Guide at help.apple.com/helplibrary/ or launch the documentation from the Help menu in Motion.
- Many online resources allow students to ask questions and learn tips and tricks. To access white papers and discussion forums, and learn about the many other online materials, visit www.apple.com/finalcutpro/resources/ and http://www.apple.com/finalcutpro/motion/all-features/.
- Designed for iPad and iPhone, the Test Yourself app lets students review and assess their knowledge of the material in the Motion 5 Level One exam. The app will be available in early 2012.
- For information on the Apple Pro Training Program, visit training.apple.com/.

Review the objectives and review questions

Even if you're self-taught or have taken courses that don't use the Apple Pro Training Series curriculum, you can still prepare for the certification exam by making sure that you can complete all the tasks and answer all the review questions in the following sections.

The exam objectives describe the knowledge domains assessed by the exam. The review questions summarize what you should have learned in each chapter. Please note that although this guide divides the objectives into lessons or knowledge areas, questions are presented randomly during the exam.

The number of test questions drawn from each knowledge area is indicated for each of the following lessons.

Lesson One Objectives

Upon completion of Lesson One, "Getting Around in Motion" in "Motion 5," you should be able to complete the following tasks. Three items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Navigate the Motion interface
- Add video to a project
- Make transformations
- Add and modify effects
- Apply blend modes
- Create and animate text
- Use Library content
- Output your project

Lesson One review questions

After completing Lesson One, you should be able to answer the following questions.

1. In the Project Browser, what must you do to create and open a new Motion project?
2. Identify the four main areas that are visible in a new project.
3. How can you precisely center a clip in the Canvas?
4. Other than in the Timing pane, in what part of the Motion interface can you change the play range or adjust a selected layer?
5. Do you have to stop playback to change the scale of a video clip?
6. How do you change the scale of a layer in the Canvas without changing its proportions?
7. Name the three kinds of effects you can add to a layer.

8. How can you change the way the pixels of one layer combine with pixels of a layer underneath?
9. Where is all the content that ships with Motion located?
10. In what part of the Motion interface can you interactively view fonts for a text layer without going to the Inspector?
11. Which keyboard shortcut opens Player mode?
12. If you choose Export Movie, can you still render in the background as long as you open the Share Monitor?

Answers

1. Select the Blank category in the sidebar and the Motion Project in the project stack, and then click Open.
2. The Canvas, File Browser, Project pane, and Timing pane
3. Drag the clip and use the dynamic guides with snapping enabled, or click the Import button in the File Browser.
4. The mini-Timeline
5. No, you can build an entire Motion project while the project is playing, although it's sometimes easier to accomplish certain tasks when the playhead is stopped.
6. Shift-drag a transform handle.
7. Filters, masks, and behaviors
8. Change the blend mode.
9. The Library
10. The heads-up display, or HUD
11. F8
12. No, Export Movie renders in the foreground unless you use Send to Compressor.

Keyboard Shortcuts

Command-S	Save the project
F1	Open the Properties pane of the Inspector
F2	Open the Behaviors pane of the Inspector
F3	Open the Filters pane of the Inspector
F4	Open the Object pane of the Inspector (context sensitive depending on the selected object)
F5	Open and close the Project pane (which opens to its Layers list by default)
F6	Open and close the Timing pane (which opens to its Timeline component by default)

F7	Show/hide the HUD
Option-Z	Zoom Canvas to 100 percent
Shift-Z	Set the Canvas to Fit in Window zoom mode
Spacebar	Turn playback on and off
Command-Z	Undo the previous action

Lesson Two Objectives

Upon completion of Lesson Two, "Building a Composite" in "Motion 5," you should be able to complete the following tasks. Five items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Apply blend modes and combine with filters
- Import layered Photoshop files
- Copy layers and filters
- Work with image sequences
- Perform Timeline edits
- Change preferences
- Make clone layers
- Transform and add masks to groups

Lesson Two review questions

After completing Lesson Two, you should be able to answer the following questions.

1. How can you ensure that transparent areas of your project will appear black?
2. You are using the HUD to change the brightness of a filter, but even at the maximum setting, it's not bright enough. Where can you enter a higher value?
3. Name two blend modes that will generally result in a lighter image.
4. Identify two ways to modify the impact of a blend mode.
5. When you want to make a copy of a layer or group, what is an alternative to duplicating?
6. Identify the three options for importing a multilayered Photoshop file.
7. A client gives you 50 digital photos to use in a Motion project. You put them in a folder on your desktop, but when you look in the folder using the File Browser in Motion, all you see is a single icon. What's going on, and what can you do to see all the photos?

8. Name three types of edits you can perform in Motion.

Answers

1. Choose Edit > Project Properties and set Background to Solid.
2. In the Inspector
3. Add, Lighten, Screen, Color Dodge, or Linear Dodge
4. Lower the opacity of the layer, duplicate the layer, or add a colorize filter.
5. Use Make Clone Layer, which is similar to duplicating, but uses less memory, and the clone layer inherits certain properties of the original.
6. As merged layers, as all layers, or by selecting an individual layer
7. The photos are numbered sequentially and appear by default in the File Browser as a collapsed image sequence. Click the "Show image sequences as collapsed" button to see the individual files.
8. Composite, overwrite, insert, sequential

Keyboard shortcuts

Command-1	Reveal the File Browser
Command-2	Reveal the Library
Command-3	Reveal the Inspector
Command-D	Duplicate the selected layers(s) or group(s)
Command-J	Reveal project properties
Command-Shift-N	Create a new Group
Command-, (comma)	Open Preferences
Command-[(left bracket)	Send the selected layer back (down)
Command-] (right bracket)	Move the selected layer forward (up)
Command-Shift-[(left bracket)	Send the selected layer to the back (bottom of the group)
Command-Shift-] (right bracket)	Bring the selected layer to the front (top of the group)
Option-drag	Create a copy in the Canvas, Layers list, or Timeline
K	Clone a group or layer

Lesson Three Objectives

Upon completion of Lesson Three, "Creating Animation with Behaviors" in "Motion 5," you should be able to complete the following tasks. Five items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Create animation using Basic Motion behaviors
- Adjust, copy, and trim behaviors
- Use Simulation behaviors
- Apply Parameter behaviors
- Clone animated groups
- Compare animation using behaviors and keyframes

Lesson Three review questions

After completing Lesson Three, you should be able to answer the following questions.

1. Name three of the Basic Motion behaviors.
2. You applied a Motion Path behavior and added control points to create a curved path. How can you make the layer turn as it moves along the path?
3. If you copy a behavior from one layer to another, will it always match the duration of the target layer?
4. How do you trim the Out point of a behavior to match the layer to which it's applied?
5. What type of behaviors mimic physical phenomena such as gravity, inertia, and random movement?
6. You added a Grow/Shrink behavior to a layer and would like to adjust it using the onscreen controls. What happens if you drag one of the blue edge handles?
7. Why would you change a group from a 2D group to a 3D group?
8. Describe two ways to apply a Parameter behavior.
9. What's one difference between duplicating a layer and cloning a layer?

Answers

1. Grow/ Shrink, Fade In/Fade Out, Throw, Spin, Motion Path, and Snap Alignment to Motion are all Basic Motion behaviors.
2. Add the "Snap Alignment to Motion" behavior from the Basic Motion category.
3. No, the copied behavior will match the In point of the target layer but its duration won't change from the original. So, if the

target layer is longer or shorter than the source layer, the Out point of the behavior must be trimmed to match it.

4. Select a layer in the Timeline and press Shift-O to move the playhead to the layer's Out point. Then press O to trim the Out point of the behavior to the playhead. Or drag the right edge of the behavior, holding down the Shift key to snap to other layers.
5. Simulation behaviors
6. Dragging an edge handle will scale the layer up or down non-proportionally over time.
7. You want to composite the layers in the group based on their positions in z-space rather than the stacking order in the Layers list. Also, certain behaviors will work in 3D only if the group containing them is a 3D group. Finally, the lights do not affect 2D groups.
8. Drag a Parameter behavior from the Library to a layer, and then select the target parameter in the HUD or Behaviors Inspector. Alternatively, first choose the target parameter you want to animate and then in the Inspector, click the Animation menu for that parameter and choose Add Parameter Behavior.
9. A duplicated layer is independent of the original; a clone will change when you change certain aspects of the original—for example, changing the animation of the original.

Keyboard shortcuts

D	Cycle HUD forward
Shift-D	Cycle HUD backward
Shift-V	Turn the full view area on and off
Command-Option-I	Set a play range In point
Command-Option-O	Set a play range Out point
Command-Arrow	Nudge the selected layer in the direction of the arrow
Shift-Command-Arrow	Nudge in a larger increment in the direction of the arrow

Lesson Four Objectives

Upon completion of Lesson Four, "Animating with Keyframes" in "Motion 5," you should be able to complete the following tasks. Seven items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Record keyframes
- Set keyframes manually

- Use the Keyframe Editor
- Change keyframe interpolation and adjust keyframe curves
- Add, move, and change the values of keyframes on a curve
- Set keyframes for multiple layers simultaneously
- Change keyframe timing in the Timeline
- Choose keyframe curves for editing in the Keyframe Editor

Lesson Four review questions

After completing Lesson Four, you should be able to answer the following questions.

1. How does Motion let you know that recording is enabled?
2. Which parameters of a layer or group are keyframed when recording is turned on and their values are changed?
3. How many keyframes do you need to create animation?
4. The position of a video is keyframed at 1:00 and 5:00, but it does not move. Why?
5. How do you open the Keyframe Editor?
6. How do you change the interpolation for a keyframe curve?
7. How can you set the interpolation for a keyframe to Logarithmic?
8. You want to set a keyframe at 3:15 for the scale of three layers that are each in different groups. How can you set it for all of them at once?
9. When you set a keyframe with recording enabled at a frame that is not at the beginning of a layer, what does Motion do automatically?
10. When setting keyframes manually, which do you do first—set the keyframe or change the value—and why?
11. What parameters can be keyframed?

Answers

1. The Record button turns red, and all keyframeable value fields in the Inspector turn red.
2. All keyframeable parameters will be keyframed by default if you change their values. You can change the recording options by double-clicking the Record button and selecting the checkbox to record keyframes on animated parameters only.
3. To animate with keyframes, you need to have at least two keyframes with different values.
4. Because the keyframes have the same value.

5. Choose Window > Keyframe Editor or press Command-8.
6. In the Keyframe Editor, from the Animation pop-up menu, choose Interpolation. The submenu includes four interpolation options: Constant, Linear, Bezier, and Continuous. You can also Control-click a keyframe or a curve in the Keyframe Editor.
7. In the Keyframe Editor, you can change the interpolation of individual keyframes along a curve by Control-clicking a keyframe and choosing an interpolation type. This technique provides access to five additional interpolation options: Ease In, Ease Out, Ease Both, Exponential, and Logarithmic.
8. Command-click each of the layers to select them. Then click the Animation pop-up menu in the Properties Inspector for Scale and choose Add Keyframe, or click the keyframe icon.
9. Motion automatically sets a keyframe at the beginning of a layer if recording is enabled when you change the value of a parameter at any other point in time.
10. Always set the keyframe first and then change the value when setting keyframes manually; otherwise, the value will change for the entire duration of the layer, not just at the keyframe.
11. Any parameter of any layer, group, or effect that has an Animation pop-up menu in the Inspector.

Keyboard shortcuts

A	Toggle recording off and on
Control-K	Add a keyframe for the last animated property
Command-8	Open the Keyframe Editor
Shift-K	Move to the next keyframe
Option-K	Move to the previous keyframe

Lesson Five Objectives

Upon completion of Lesson Five, "Creating Content with Shapes, Generators, and Paint Strokes" in "Motion 5," you should be able to complete the following tasks. Two items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Draw shapes
- Create and modify gradients
- Apply generators
- Search the Library
- Mask with images

- Use Shape behaviors
- Import vector graphics
- Work with paint strokes

Lesson Five review questions

After completing Lesson Five, you should be able to answer the following questions.

1. How many color tags can you add to a shape's gradient in the Inspector?
2. How do you reverse the direction of a gradient?
3. Where do you change the fill for a shape such as a rectangle?
4. How do you create an image mask?
5. True or false: A source image for an image mask must contain an alpha channel.
6. You've added a vector graphic in the Illustrator or PDF format but when you resize it, it looks blurry. How can you fix this?
7. How do you create a generator?
8. If you select a category in the Library and it is empty, what might be the first thing to check?
9. How does the Paint Stroke tool differ from the Bezier tool?
10. How can you increase the speed of a Shape behavior?
11. Describe two ways to apply a shape style preset to a paint stroke.
12. What behavior can you use to animate the appearance and/or disappearance of a paint stroke from the first control point to the last?

Answers

1. There is no limit.
2. Click the Reverse Tags icon next to the color gradient bar.
3. With the layer selected, press F4 to open the Shape pane of the Inspector and choose the appropriate option from the Fill Mode pop-up menu.
4. In the Layers list, Control-click the appropriate layer, and choose Add Image Mask from the shortcut menu. Drag an image into the Mask Source drop well.
5. False. An image mask can use an alpha channel, luminance channel or a color channel.
6. Switch to the Media List in the Project pane to select the AI or PDF file. Then view the Media pane in the Inspector and deselect the Fixed Resolution checkbox.

7. Press Command-2 to open the Library, and select the Generators category. Select a generator, and click Apply.
8. Check to make sure the Search field is empty at the bottom of the Library.
9. The Paint Stroke tool is a freehand tool. The Bezier tool lets you place each control point as you draw by clicking in the Canvas.
10. You can increase a behavior's speed by shortening its duration in the Timing pane or the mini-Timeline.
11. Choose a shape style from the HUD pop-up menu, or drag it from the Shape Style category in the Library onto the paint stroke layer.
12. The Write On behavior

Keyboard shortcuts

B	Select the Bezier tool/B-Spline tool
C	Select the Circle tool
P	Select the Paint Stroke tool
R	Select the Rectangle tool
Shift-S	Select the Select/Transform tool
Esc	Exit the Rectangle, Circle, or Line tool
Shift-Home	Move the playhead to the play range In point
Shift-End	Move the playhead to the play range Out point
Command-4	Open the Layers list

Lesson Six Objectives

Upon completion of Lesson Six, "Creating Text Effects" in "Motion 5," you should be able to complete the following tasks. Three items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Create, format, and style text layers
- Save and apply text style presets
- Format glyphs
- Animate text with text behaviors
- Customize the Sequence Text behavior
- Save text animation favorites
- Animate Text on a path
- Work with motion blur

Lesson Six review questions

After completing Lesson Six, you should be able to answer the following questions.

1. Name two of the three panes in the Text tab of the Inspector.
2. How do you display the action-safe and title-safe overlays?
3. When modifying an individual character in a text layer, which tool do you use to change its scale, position, and rotation; and how do you select that tool?
4. How do you create a marker?
5. From which two locations can you apply a preset text style?
6. Which behavior was used to create all the text sequence presets in the Library?
7. Which text layer parameters can you animate directly in the Canvas using a Sequence Text behavior?
8. What parameter would you adjust to set the number of characters animating at once in a Sequence Text behavior?
9. With the Transform Glyph tool, you can change the offset, scale, and rotation of a character directly in the Canvas. Where are those parameters located in the Inspector?
10. After changing the Layout Method to Path, what must you do to see the path in the Canvas?
11. Describe one method for turning on motion blur, and identify where you can adjust its settings.

Answers

1. Format, Style, and Layout
2. From the "View and Overlay" pop-up menu at the top right of the Canvas, choose Safe Zones, or press the ' (apostrophe) key.
3. You use the Transform Glyph tool, which you can select from the 2D Transform tools in the toolbar (the first of three View tools), or by Control-clicking a text layer in the Canvas and choosing Transform Glyph.
4. Select a layer and press M.
5. From the Style Preset pop-up menu in the Style pane of the Text Inspector, or from the Text Styles category in the Library
6. The Sequence Text behavior
7. Position, rotation, and scale
8. The Spread parameter
9. In the Format pane of the Text Inspector (as opposed to the Properties pane, which contains Position, Scale, and Rotation parameters for the entire text layer)

10. Double-click the text in the Canvas.
11. You can turn on motion blur from the Render Options pop-up menu, by choosing View > Render Options > Motion Blur, or by pressing Option-M. To change its settings, open the Project Properties window by choosing Edit > Project Properties, or pressing Command-J, and then select the Render Settings pane.

Keyboard shortcuts

T	Select the Text tool
Tab	Rotate through each available tool for the selected object
Esc (Escape)	Exit text-entry mode
Option-M	Toggle motion blur off and on
(apostrophe)	Toggle safe zones display

Lesson Seven Objectives

Upon completion of Lesson Seven, "Working with Particle Emitters and Replicators" in "Motion 5," you should be able to complete the following tasks. Four items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Create and modify a particle emitter
- Use an image sequence as a cell source
- Browse, apply, and customize preset emitters and replicators
- Create and modify a replicator

Lesson Seven review questions

After completing Lesson Seven, you should be able to answer the following questions.

1. Name the two particle system components that appear in the Layers tab when you make a particle emitter.
2. You created particles from a leaf graphic you found in the Library, and made those particles spin by increasing the Spin value in the Emitter pane. But you now want each to spin each of them at different rates. Which Emitter pane parameter do you adjust to do this?
3. What kind of particle-specific behavior do you use to change particles' sizes during their lifespan and what does it get applied to?

4. Your particles appear at random locations on the screen, but you want to change those random locations. Which button can you click to create a different random pattern?
5. What is a quick way to introduce variations that give your particle system a more natural, organic look?
6. What's the primary difference between a particle emitter and a replicator?
7. How can you animate a replicator's elements so that they fade onto the screen, one after the other?
8. You want to drag the bounding box to resize a replicator but the onscreen controls aren't appearing. How can you display them?
9. Name three shapes that can be chosen from the Shape parameter pop-up menu for a particle emitter or a replicator.
10. Can you use a QuickTime movie as the source for a particle emitter as well as a replicator source?

Answers

1. The emitter and the cell
2. The Spin Randomness parameter
3. Apply the Scale Over Life behavior to the particles' cells.
4. The Generate button for the Random Seed parameter
5. Use the randomness parameters that appear in the Cell Controls section of the Emitter pane. For example, below Birth Rate is Birth Rate Randomness, below Life is Life Randomness, and so on.
6. A particle emitter creates a continuous stream of particles that are born, stay onscreen for some time, and then die. A replicator creates a fixed number of elements in a static pattern.
7. Use the Sequence Replicator behavior, add the Opacity parameter, set the parameter to 0, and set Sequencing to From.
8. The replicator bounding box is available only when you select the Adjust Item tool in the toolbar, or Control-click the replicator in the Canvas and choose Replicator from the pop-up menu.
9. Line, Rectangle, Circle, Burst, Spiral, Wave, Geometry, and Image. Particle emitters can also have a Point shape.
10. Yes, you can use images, image sequences, movies, or many of the Motion objects (text, generators, shapes) as sources for both emitters and replicators.

Keyboard shortcuts

E	Create a particle emitter
L	Create a replicator
Shift-End	Move the playhead to the play range Out point (Shift-FN-Right Arrow on a laptop)
Shift-Home	Move the playhead to the play range In point (Shift-FN-Left Arrow on a laptop)
Shift-V	Show the full view area

Lesson Eight Objectives

Upon completion of Lesson Eight, "Using Audio" in "Motion 5," you should be able to complete the following tasks. Two items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Work with audio in the Audio List and Audio Timeline
- Automate audio levels using behaviors
- Create and edit markers
- Assemble a project from saved Motion groups
- Edit to the beat of an audio track
- Sync animation to audio with the Audio Parameter behavior

Lesson Eight review questions

After completing Lesson Eight, you should be able to answer the following questions.

1. Can Motion work with 5.1-channel surround sound audio files?
2. Name two locations in the Motion interface where you can work with audio.
3. In what two ways can you adjust audio with behaviors?
4. What is the difference between project markers and layer markers?
5. You are adding audio markers on the fly and realize that your timing was off. How can you remove all markers to start over?
6. If you can't remember the keyboard shortcuts to create, edit, jump to, and delete markers, what is the menu containing all these commands?
7. You enabled audio in the transport controls and now Motion is skipping video frames as necessary to sync the audio with the video and play in real time. How would you turn off the audio to play every frame?

8. True or false: The Audio parameter behavior lets you animate any keyframeable parameter of any group, layer, or effect to an audio track's specific frequency range and volume range.

Answers

1. Yes, but you can only hear all six channels when your hardware supports 5.1 surround sound.
2. The Audio list in the Project pane and the Audio Timeline in the Timing pane
3. You can automate the audio level with the Audio Fade In/Fade Out behavior, and you can automate panning with the Audio Auto Pan behavior.
4. Project markers appear over the ruler area of the Timeline, whereas layer markers are applied directly to a selected layer, group, or effect.
5. Choose Mark > Markers > Delete All Markers.
6. The Mark menu
7. Disable audio in the transport controls, or choose Motion > Preferences. Click the Time pane and in the Playback Control section, select Pause Audio Playback.
8. True

Keyboard shortcuts

M or ` (grave)	Add a marker
Shift-M	Add a project marker
Command-Option-M	Edit a marker
Command-6	Reveal the Audio list in the project pane
Command-9	Reveal the Audio Timeline in the Timing pane
Command-Option-Left Arrow	Move the playhead to the previous marker
Command-Option-Right Arrow	Move the playhead to the next marker

Lesson Nine Objectives

Upon completion of Lesson Nine, "Speed Changes and Optical Flow" in "Motion 5," you should be able to complete the following tasks. Two items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Speed up and slow down a video clip
- Apply optical flow frame blending
- Use keyframes to create a variable speed ramp

- Apply, trim, and combine Retiming behaviors
- Use and modify Time filters

Lesson Nine review questions

After completing Lesson Nine, you should be able to answer the following questions.

1. In which pane and section do you change the speed of a clip?
2. Name the two kinds of Time Remap speed changes.
3. Identify three of the four frame blending options.
4. You created a slow motion effect using the Optical Flow option. How can you determine how large the resulting cache file is?
5. Can you continue working on a Motion project while the optical flow analysis is performed?
6. Describe four reasons to create a speed effect with a Retiming behavior instead of using keyframes.
7. Which Retiming behavior lets you create a speed ramp effect?
8. Can you combine Retiming behaviors with keyframes?
9. Name two of the Time filters.

Answers

1. The Properties Inspector in the Timing pane
2. Constant Speed and Variable Speed
3. None, Blending, Motion-Blur Blending, and Optical Flow
4. Choose Motion > Preferences. In the Cache pane, click the "Reveal in Finder" button, and then select the cache file to view its properties.
5. Yes, it's a background task.
6. Behaviors can be added and adjusted quickly; they can create effects that would be difficult or time-consuming using keyframes; Retiming behaviors only change the parts of a clip where they are applied; you can change the locations and durations of Retiming behaviors right in the mini-Timeline.
7. The Set Speed behavior
8. Yes, if you apply a keyframe curve to a Retiming behavior, both keyframes and behaviors manipulate the clip's playback speed.
9. Echo, Scrub, Strobe, Trails, Wide Time

Lesson Ten Objectives

Upon completion of Lesson Ten, "Keying and Compositing" in "Motion 5," you should be able to complete the following tasks. Two items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Stabilize a shot
- Match move one shot to another
- Use the Keyer to remove a green screen
- Create and animate a B-Spline mask
- Match foreground and background color
- Add and customize a particle effect

Lesson Ten review questions

After completing Lesson Ten, you should be able to answer the following questions.

1. You want to create a hole in a layer to reveal the layers underneath. You add a mask with the B-Spline tool, but instead of creating a hole in the layer, it restricts the layer's visibility to the area inside the circle. How can you make it do the opposite?
2. What types of camera movements can you stabilize using the Stabilize behavior?
3. When using the Match Move behavior to track the position of one layer to another, do you apply the behavior to the layer that will inherit the new movement or to the layer that has the movement you want?
4. How can you create a sharp corner in a B-Spline mask?
5. If the shades of the green or blue screen are not totally removed when you first apply the Keyer filter, how can you add additional shades?
6. You are looking at a keyed shot and the foreground subject has some areas of green fringe around it. Which parameter of the Keyer filter do you adjust?
7. You've perfected the matte on your subject, but a white ring appears around the foreground subjects. Describe one of two approaches to remove the white ring.
8. In what two areas can you find the Light Wrap parameters, and when would you adjust them in each location?
9. How can you check the actual RGB values of an area in your clip?
10. What does the Strength slider do in the Keyer filter?

Answers

1. In the HUD or the Mask pane of the Inspector, choose Subtract from the Mask Blend Mode pop-up menu, or click Invert in the Inspector.
2. Position, Rotation, and Scale
3. The Match Move behavior is applied to the layer you want to inherit the new movement.
4. Command-drag the control point, (or Control-click the control point), and from the shortcut menu, choose Linear.
5. In the Inspector, click the Sample Color button and drag a selection rectangle around the additional color shades you want to remove.
6. The Spill Level parameter
7. Adjust the Shrink/Expand parameter to shrink the matte, or adjust the White point handle in the Spill Contrast graph.
8. The Light Wrap parameters can be found in the Keyer filter or in the Blend Mode menu on the Properties pane. You would use the Light Wrap in the Blend Mode menu when you plan to color correct the foreground of the key. Otherwise you can use the Light Wrap setting in the Keyer.
9. Select the Color checkbox in Motion Preferences, and move the pointer over pixels in the image.
10. The Strength slider adjusts the core transparency. When you reduce the slider value, you reduce the transparency by narrowing the range of green used to create the matte.

Keyboard shortcuts

Option-BB	Choose the B-Spline Mask tool

Lesson Eleven Objectives

Upon completion of Lesson Eleven, "Publishing Smart Templates for Final Cut Pro X" in "Motion 5," you should be able to complete the following tasks. Two items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Preview, apply, and adjust Final Cut Pro title effects
- Modify Final Cut Pro effects in Motion
- Create a Smart Motion Template from scratch
- Publish template parameters

Lesson Eleven review questions

After completing Lesson Eleven, you should be able to answer the following questions.

1. Name the four kinds of effects in Final Cut Pro.
2. In Final Cut Pro, if you can't get the look you want for an effect by using the Published Parameters in the Inspector, how could you modify the effect?
3. How do you exit text editing mode?
4. In Final Cut Pro, how can you preview a title animation in both the thumbnail and in the Viewer before applying it to your project.
5. In Motion, what content does a Final Cut Title project already contain?
6. How can you force Final Cut Pro to play your opening title animation at the same speed as your Motion project, no matter how the duration of the title is trimmed in Final Cut Pro?
7. Describe two ways you can publish a parameter of a Motion Smart Template so that it's available in Final Cut Pro.
8. How can you change the name of a published parameter?

Answers

1. Effects, Transitions, Titles, and Generators
2. Control-click the effect in the Browser, and choose "Open a copy in Motion" from the shortcut menu. Then change anything you like.
3. Press the Esc key.
4. Move the pointer or *skim* across the preview thumbnail.
5. A text layer and a placeholder layer named *Title Background*
6. In Motion, add a Build In marker to the Timeline on a frame after the opening animation has completed.
7. In Motion's Inspector, use the Animation menu, or Control-click the parameter name. Also, for some parameters, you can Control-click the parameter name in the HUD.
8. Select the project in the Layers list. Open the Project Inspector, and click the Publishing button. Double-click any parameter name to change it.

Keyboard shortcuts

Command-Tab	Rotate through open applications
Command-0	In Final Cut Pro, opens the Project Library

Command-4	In Final Cut Pro, opens the Inspector
Q	In Final Cut Pro, connects the selected clip or effect to the primary storyline

Lesson Twelve Objectives

Upon completion of Lesson Twelve, "Rigging and Publishing Widgets" in "Motion 5," you should be able to complete the following tasks. Three items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Rig and publish a checkbox widget for a Final Cut Pro title
- Analyze the structure of a Final Cut Transition project
- Connect parameters with the Link behavior
- Rig and publish a pop-up widget
- Create a Final Cut effect project
- Rig and publish a slider widget

Lesson Twelve review questions

After completing Lesson Twelve, you should be able to answer the following questions.

1. What is the relationship between a rig and a widget?
2. Describe two ways to add a parameter to a widget.
3. What is the simplest type of widget and why?
4. How do you know if a parameter has been rigged?
5. What does the green placeholder layer in a Final Cut transition project represent?
6. When you finish rigging a widget, what do you have to do to make it available in Final Cut Pro X?
7. In Motion, how can you display a list of all published parameters?
8. You want to rig a transition so that you can choose from five color themes in Final Cut Pro. What type of widget should you choose?
9. You want to rig a generator so that the Final Cut Pro editor can rotate all the graphics at once to point in any direction. What type of widget should you use?

Answers

1. A rig is a container for widgets, much like a group is a container for layers. Before you can add a widget to a Motion project, you must first add a rig to contain the widget.

2. You can add a parameter to a widget manually by choosing Add to Rig > (*Rig name*) > Add to (*Widget name*), or automatically by clicking Start to enter into Rig Edit Mode and changing the value of the parameter.
3. A checkbox is the simplest type of widget because it has only two states: selected or deselected. Each state is called a *snapshot* and contains parameter values that you select.
4. Next to the Animation menu of a parameter, a joystick icon indicates that the parameter is rigged.
5. A Final Cut transition contains a placeholder layer for each side of the edit point. The green layer, Transition A, represents the outgoing video clip; the red layer, Transition B, represents the incoming video clip.
6. You need to publish the widget to use it in Final Cut Pro X.
7. In the Layers list, select the project, and then in the Project Inspector, select the Publishing pane.
8. The pop-up widget allows you to set as many discrete snapshots as you'd like to place in a menu.
9. The slider widget lets you set up snapshots for maximum and minimum values and then choose any value between them by dragging the slider.

Keyboard shortcuts

Command-Control-R	New rig

Lesson Thirteen Objectives

Upon completion of Lesson Thirteen, "Building a 3D Scene" in "Motion 5," you should be able to complete the following tasks. Four items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Manipulate layers and groups in 3D space
- Add and manipulate a camera
- Enable and work with 3D Canvas overlays
- Build and transform 3D scenes
- Work with axis modes
- Use multiple viewports
- Use the Frame Object command
- Mix 2D and 3D groups

Lesson Thirteen review questions

After completing Lesson Thirteen, you should be able to answer the following questions.

1. How can you automatically switch all groups in your project to 3D?
2. How do you add a camera?
3. Name three locations in which you can change the position and rotation of a layer or group in 3D space.
4. What's the difference between layers in a 2D group and in a 3D group?
5. Do the 3D View tools always control the camera?
6. Which tool is used to make 3D transformations directly in the Canvas, and which keyboard shortcut selects it?
7. How can you quickly move a camera to look at and frame a specific layer in 3D space?
8. In the HUD, how would you set the Adjust Around pop-up menu if you wanted the z-axis of a layer to always point straight at you, no matter how the layer or the camera was oriented?
9. If you applied an image mask to a layer that is positioned in 3D space, why wouldn't the image mask appear on the layer?

Answers

1. By adding a camera
2. In the toolbar, click the New Camera button or choose Object > New Camera.
3. In the Inspector, the HUD, or the Canvas
4. Layers in 2D groups are not affected by the camera, and are composited based on stacking order in the Layers tab.
5. No. The 3D View tools control the camera only when the window is set to a Camera view.
6. The Adjust 3D Transform tool allows you to transform the position and rotation of layers and groups in both the HUD and the Canvas. Press Q to select the Adjust 3D Transform tool.
7. Select the layer, and from the Camera menu, choose Frame Object, or press Shift-Command-F.
8. Set the Adjust Around pop-up menu to View Axis mode to orient the axes so that they reflect the orientation of your computer screen.
9. The image mask source is not aligned to the layer you are masking.

Keyboard shortcuts

Q	Select the Adjust 3D Transform tool
Control-A	Select the Active Camera view from the Camera menu
Control-D	Toggle a group between 2D and 3D

Lesson Fourteen Objectives

Upon completion of Lesson Fourteen, "Building a 3D Scene" in "Motion 5," you should be able to complete the following tasks. Four items from this lesson are included in the pool of Level One exam questions. Questions are drawn randomly from the following objectives:

- Animate a camera with behaviors
- Work with depth of field
- Turn on and adjust reflections
- Understand light types
- Work with casting and receiving shadows

Lesson Fourteen review questions

After completing Lesson Fourteen, you should be able to answer the following questions.

1. Name two of the Camera behaviors.
2. Can the stacking order of Camera behaviors change the camera's animation?
3. You used a Framing behavior to frame a group. You then rotate the group 180 degrees around its y-axis and drag it down 1,000 pixels. How will this transformation affect the camera?
4. What types of behaviors, besides Camera behaviors, can you use to animate a camera?
5. How do you limit the camera's depth of field?
6. How do you turn on reflections for a layer?
7. You added a light and turned on shadows. Your text is throwing shadows onto the floor, which you want, but it is also throwing shadows onto another text layer, which you don't want. What do you do?

Answers

1. Framing, Sweep, Focus, Dolly, Zoom In/Out, Zoom Layer
2. Yes. For example, if the Framing behavior is on top of a Sweep behavior, it will force the camera to frame the target layer face-on, even if the sweep tries to rotate it.

3. The camera will also rotate 180 degrees and move down 1,000 pixels to properly frame the group.
4. Basic Motion, Parameter, and Simulation behaviors—basically, any behaviors that work on a layer will work on a camera.
5. From the Render pop-up menu, choose Depth of Field.
6. In the Properties pane of the Inspector, select the Reflections checkbox.
7. Select the text layer that is receiving the shadows, and in the Properties pane, deselect the Receive Shadows checkbox.

Keyboard shortcuts

Option-L	Turn on lights
Control-Option-D	Turn on limited depth of field
Command-Shift-L	Add a new light
Control-Option-R	Turn on reflections
Control-Option-S	Turn on shadows
Command-Shift-' (apostrophe)	Toggle 3D grid visibility

Taking the Level One Certification Exam

The Level One certification exam must be taken at an Apple Authorized Training Center (AATC) in a proctored setting. To find the closest AATC, please visit training.apple.com/locations.

Many AATCs schedule "Certification Exam Sessions" at training.apple.com/schedule. However, if you don't see a session scheduled, you can contact the AATC and they will often schedule one for you. Please note that all AATCS can offer all Mac OS X and Pro Apps exams, even if they don't offer the corresponding course.

Exam FAQs

Please visit training.apple.com/certification/faq for a list of frequently asked questions. If you do not find the answer to your question, then email us. Please allow at least two business days for a response.